

ABSTRACT

A fuel cell power plant comprises a fuel cell stack (1) constituted by a plurality of fuel cells which perform electric power generation by means of a reaction of hydrogen and oxygen. A controller (16) determines whether or not moisture inside the fuel cell stack (1) is frozen, and if the moisture is frozen, the controller (16) causes the fuel cell stack (1) to perform intermittent electric power generation via an inverter (27) while continuing to supply oxygen to the fuel cell stack (1). The fuel cell stack (1) generates heat as a result of the electric power generation, whereby moisture is generated in a cathode (9). During the periods in which electric power generation is not performed, the oxygen which is supplied to the cathode (9) of the fuel cells scavenges the generated moisture, thereby ensuring the supply of oxygen to the cathode (9) during electric power generation.